

APPENDIX A

CRITERIA FOR MEETING “ACCEPTABLE PLAN” FOR FEDERAL OIL AND GAS LEASE WYW153613

Kennedy Oil Pilot Exploratory Coal Bed Methane Project
Red Desert Watershed Area

The following criteria are provided as guidance for preparing acceptable mitigative plans for any surface disturbing activity proposed on federal oil and gas lease WYW153613, located on:

T. 24 N, R. 98 W., 6th Principal Meridian
Section 22: All
Section 23: W1/2E1/2, W1/2

The federal lease location is in the Red Desert Watershed. The lease states that surface occupancy or use within the Red Desert Watershed will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts for protecting watershed, visual resources, wildlife, and soils. In addition, a Native American Trail may exist in the area. Thus, criteria have been identified to protect cultural resources. These criteria are not all-inclusive but are identified as points that should be considered when developing mitigative plans.

Disturbance Areas

1. Pad location and associated road disturbance should be kept to the minimum needed to safely conduct operations.

Transportation Planning

1. Miles of roads should be kept to a minimum.
2. All roads should be reviewed and certified by a licensed professional engineer.
3. Roads should be engineered to avoid concentrating overland flow of water. Roads should be designed and placed to avoid drainage areas. If drainage areas cannot be avoided, then engineered and appropriate spacing of crossings with energy dispersion structures.
4. Reduce cut and fill areas where possible.
5. Reduce road standards when feasible (i.e., width).
6. Require durable surfacing (i.e., gravel). Gravel according to the Manual 9113 road standards unless analysis proves otherwise.
7. Layout location of main roads during transportation planning. Consider alternative routes including a main access between wells in southern pod and cherry stem to each well or cherry stem roads from existing oil and gas main access road.
8. Maintenance should include surveys of channel conditions below engineered portions of culvert discharges. Timely repair of problems when found.
9. Pipelines should be placed adjacent to roads where possible.

Cultural Resources

1. Follow BLM protocol for implementation of the Nationwide Programmatic Agreement.
2. Consultation with Native American groups should certain features be found (e.g. rock art, stone circles, burials, cairns, flat-top mesas). There is a potential Indian Trail in the general area. Should physical evidence of the Trail be found, consultation will be implemented immediately.

Geological Formations/Hazards (RMP)

1. Avoid slopes in excess of 25 percent.
2. Avoid highly erosive areas when possible, otherwise design and construction should be done in such a manner as to reduce erosion.

Visual/Class III VRM

1. All disturbance on public lands need to meet the Class III VRM objectives. The objective for Class III is to partially retain the existing character of the landscape. Level of change should be low. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape (Manual 8410-1).
2. Roads should be designed to avoid straight lines where possible.
3. Pad locations should be hidden by topographical features or otherwise screened where possible.
4. Site specific visual resource reviews (inventories, viewshed analysis) should be conducted at the EA stage (in lieu of individual actions) that may affect visual resources.
5. Reduce production facility dimensions (i.e., height, width) so as to blend into the surrounding landscape.
6. Use low contrast, non-reflective paint for production facilities.
7. Reduce contrast of base material color and texture (i.e., use of native gravel if available).

Reclamation

1. Reclamation will be done as soon as possible after disturbance in accordance with an approved reclamation plan (as outlined in the EA and approved APD or ROW).
2. All actions on public lands will require an Erosion Control, Revegetation, and Restoration Plan (ERRP) and conform to the Wyoming policy on reclamation. Follow-up monitoring will be required to assure compliance.
3. Protect existing native vegetation by minimizing disturbance.
4. Stabilize disturbed areas and/or soil by establishing native vegetation or ground cover. Seek site stabilization within 3-5 years. Reclamation activity will be monitored to assure success.
5. Use native, certified weed-free seed in reclamation activities.
6. Prompt treatment of noxious weed infestations.
7. Restore original contours on pad and road construction.
8. Leave surface terrain rough as possible to catch and hold moisture to enhance seed

germination.

Wildlife/Special Status Species (Plant and Animal)

1. No crucial big game winter range is present. However, winter/yearlong elk habitat and year-round pronghorn antelope habitat is present. Activities should be designed to cause the least disruption of big game. The company may initiate policies of no game harassment by personnel.
2. Survey for raptors and avoid raptor concentration areas. Apply seasonal restriction for active individual raptor nests (2/1-7/31 nesting and 11/15-4/30 for winter concentration areas). Survey of prairie dog towns that do not meet USFWS black-footed ferret criteria for burrowing owls.
3. Suitable habitat for mountain plover will be surveyed in accordance with the U.S. Fish and Wildlife Service (USFWS) guidelines for survey for mountain plovers (March 2002). Avoidance of mountain plovers would be conducted in accordance with USFWS guidelines.
4. Survey prairie dog town/complexes that meet USFWS criteria for black-footed ferret habitat in accordance with USFWS guidelines.
5. Survey for greater sage grouse and implement seasonal stipulations (2/1-7/31 leks and nesting areas (2 miles)) and limit road use within project area to hours between 6:00pm and 9:00 am to protect greater sage grouse.
6. Protection of migratory birds (i.e., pit netting) in accordance with USFWS guidelines.
7. Conduct surveys for BLM sensitive species as outlined in IM WY-2001-040.

Soils/Watershed

1. Use of self-contained drilling systems if possible. If not, then reserve pits should not be located in areas where groundwater is less than 50 feet. Combination of reserve pit soil and liner should not have permeability greater than 10^{-7} cm/hr. Lining of pits should be decided on a case-by-case basis. Any reserve pits must be netted in such a fashion to prevent use by migratory birds.
2. Construction with frozen material or during periods when the soil is saturated or when watershed damage is likely to occur will be prohibited.
3. Avoid disturbance within 100 feet, or more at the discretion of the field manager, of inner gorge of intermittent or ephemeral drainages.
4. Erosion control plans would be required (see item 2 under Reclamation).
5. Salvage and the subsequent replacement of topsoil whenever possible (topsoil depth to be determined case by case).
6. Avoid erosive soils and steep slopes when possible.
7. Design and construction should be done in such a manner to reduce erosion.
8. Construction across ephemeral drainages would be restricted until after spring runoff.
9. Seeding of borrow areas with appropriate seed mixtures (see item 5 under Reclamation).
10. No surface disposal of produced water or surface discharge from wells although some beneficial uses may be allowed and permitted by the State of Wyoming, State Engineer's Office. Beneficial uses may include dust abatement, hydrostatic testing, drilling water, etc. All produced water not used for beneficial uses must be reinjected into aquifers of equal or

*Environmental Assessment, Lower Bush Creek Pilot Exploratory
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- lesser water quality and be permitted by the State Engineer's Office.
11. Pipeline placement would be determined based on site-specific conditions. Any surface pipelines crossing roads or trails should be buried. When buried pipelines are proposed, they should follow and be placed on the edge of roadways.

Other

1. Use of remote sensing devices when feasible to reduce number of well visits.
2. Protect integrity of cultural and other scientific values.